[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0102; Project Identifier MCAI-2021-00841-R]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede airworthiness directive (AD) 2021-05-05, which applies to all Airbus Helicopters Model SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters. AD 2021-05-05 requires modifying the helicopter by replacing the tail rotor gearbox (TGB) control shaft guide bushes; repetitive inspections (checks) of the oil level of the TGB and, if necessary, filling the oil to the maximum level; repetitive inspections of the TGB magnetic plug and corrective actions if necessary; repetitive replacements of a certain control rod double bearing (bearing); and modifying the helicopter by replacing the TGB. Since the FAA issued AD 2021-05-05, the FAA determined that the magnetic plug inspection interval must be reduced and the compliance time for replacement of the affected part must be reduced. This proposed AD would continue to require certain actions in AD 2021-05-05; and would also reduce the intervals of the magnetic plug inspection, revise the corrective actions if particles are detected, and revise the compliance time for replacement of the affected part, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that is proposed for IBR in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; Internet: www.easa.europa.eu. You may find this IBR material on the EASA website at https://ad.easa.europa.eu. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0102.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2022-0102; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; telephone (202) 267-9167; email hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2022-0102; Project Identifier MCAI-2021-00841-R" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; telephone (202) 267-9167; email hal.jensen@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2021-05-05, Amendment 39-21448 (86 FR 13972, March 12, 2021) (AD 2021-05-05), for all Airbus Helicopters Model SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters. AD 2021-05-05 requires repetitive checks of the oil level of the TGB and if necessary, filling the oil to the maximum level. AD 2021-05-05 also requires modifying the helicopter by replacing the TGB control shaft guide bushes; repetitive inspections of the TGB magnetic plug and corrective actions if necessary; repetitive replacements of the bearing; and modifying the helicopter by replacing the TGB. AD 2021-05-05 was prompted by EASA AD 2017-0125, dated July 21, 2017 (EASA AD 2017-0125), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for all Airbus Helicopters Model SA 365 N1, AS 365 N2, AS 365 N3, SA 366 G1, EC 155 B, and EC 155 B1 helicopters. EASA AD 2017-0125 superseded EASA AD 2017-0007, dated January 13, 2017, which superseded EASA AD 2016-0097R1, dated May 25, 2016.

EASA AD 2017-0125 added helicopters to the applicability, added repetitive inspections of the magnetic plug after bearing replacement, required the use of the revised service information instructions, and required replacement of the TGB with a modified unit, which terminated the repetitive inspections.

Actions Since AD 2021-05-05 Was Issued

Since the FAA issued AD 2021-05-05, EASA issued EASA AD 2021-0171, dated July 19, 2021 (EASA AD 2021-0171), which supersedes EASA AD 2017-0125. EASA advises that additional testing of the affected TGB determined that the magnetic plug inspection interval must be reduced to allow timely detection of an impending TGB bearing failure. EASA further advises Airbus Helicopters published updated service information, which includes the new inspection interval, and amends the criteria for corrective action following particle detection.

Accordingly, EASA AD 2021-0171 retains the requirements of EASA 2017-0125 and requires inspection of the TGB magnetic plug at reduced intervals, and depending on the inspection results, accomplishing the corrective actions using the updated service

information. EASA AD 2021-0171 also revises the calendar compliance time for replacement of affected parts, and revises the applicability by removing the reference to Model SA 366 G1 helicopters, for which the EASA type certificate has been surrendered.

This proposed AD was prompted by a report where during a landing phase, a helicopter lost tail rotor pitch control, which caused significant damage to the TGB bearing. This AD was also prompted by the determination that reduced inspection intervals, updated corrective actions, and a revised compliance time for replacement of affected parts are necessary to address the unsafe condition. Furthermore, the FAA determined that the magnetic plug inspection interval must be reduced based on additional testing of the affected part by the manufacturer, and the compliance time for replacement of the affected part must be reduced.

Accordingly, the FAA is proposing this AD to prevent damage to the bearing, which could result in loss of yaw control of the helicopter. See EASA AD 2021-0171 for additional background information.

Related Service Information under 1 CFR Part 51

EASA AD 2021-0171 specifies procedures for modifying the helicopter by replacing TGB control shaft guide bushes, and specifies procedures for repetitive inspections of the oil level of the TGB, and if necessary, filling the oil to the maximum level. EASA AD 2021-0171 also describes procedures for repetitive inspections of the TGB magnetic plug for the presence of particles and updated corrective actions if necessary (corrective actions include removing the TGB; complying with certain work cards to address any particles found, and other conditions such as abrasions, scales, flakes, and splinters; placing the helicopter under close monitoring; and if required replacing any affected bearing); initial and repetitive replacements of the bearing with an improved part; and modifying the helicopter by replacing the TGB bearing or replacing the TGB. EASA AD 2021-0171 specifies replacing the TGB bearing is a terminating action for the repetitive inspections of the magnetic plug; and replacing the TGB is a terminating action for the repetitive inspections of the magnetic plug, and the repetitive replacements of the bearing. EASA AD 2021-0171 also prohibits installing a certain bearing or a certain TGB on any helicopter.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA reviewed Airbus Helicopters Alert Service Bulletin No. AS365-01.00.67 (ASB AS365-01.00.67 Rev 6) and Airbus Helicopters Alert Service Bulletin No. EC155-04A014 (ASB EC155-04A014 Rev 6), both Revision 6, and both dated June 14, 2021. ASB AS365-01.00.67 Rev 6 and ASB EC155-04A014 Rev 6 both specify procedures for replacement of the TGB bearing before mod 07 65B63 installation, inspection of the TGB magnetic plug, removing the control shaft/rod assembly to inspect the bearing, and maintaining the TGB operating oil at the maximum level, and specify the monitoring criteria of the bearing.

The FAA also reviewed Eurocopter Service Bulletin AS365 No. 65.00.17, and Eurocopter Service Bulletin EC155 No. 65-006, both Revision 1 and both dated February 23, 2011. Both service bulletins specify instructions for introducing Eurocopter (EC) mod 07 65B58.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type design.

Proposed AD Requirements

This proposed AD would retain certain actions required by AD 2021-05-05 and would require accomplishing the actions specified in EASA AD 2021-0171 described previously, as incorporated by reference, except for any differences as discussed under "Differences Between this Proposed AD and EASA AD 2021-0171.

This proposed AD would also allow the oil level inspections (checks) to be performed by the owner/operator (pilot) holding at least a private pilot certificate and

must be entered into the aircraft records showing compliance with this proposed AD in accordance with 14 CFR 43.9 (a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417 or 135.439.

Differences Between this Proposed AD and EASA AD 2021-0171

EASA AD 2021-0171 revises the applicability by removing the reference to Model SA 366 G1 helicopters because the EASA type certificate has been surrendered. However, Model SA-366G1 helicopters are still on the U.S. type certificate data sheet, even though there are no current U.S. operators. Therefore, this proposed AD includes Model SA-366G1 helicopters.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities to use this process. As a result, EASA AD 2021-0171 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2021-0171 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in the EASA AD. Service information specified in EASA AD 2021-0171 that is required for compliance with EASA AD 2021-0171 will be available on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0102 after the FAA final rule is published.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 50 helicopters of U.S. Registry. Labor rates are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD:

Estimated costs for retained required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. fleet
Replace guide bushes	4.00 work-hours x $85 per hour = $340	$1,586	$1,926 per replacement	$96,300
Daily oil level inspection	1.00 work-hour x $85 per hour = $85	$0	$85 per inspection cycle	$4,250
Recurring plug inspection	1.00 work-hour x $85 per hour = $85	$0	$85 per inspection cycle	$4,250
Inspect bearing	8.00 work-hours x $85 per hour = $680	$0	$680 per inspection	$34,000
Replace bearing	48.00 work-hours x $85 per hour = $4,080	$377	$4,457 per replacement	$222,850
Replace TGB	8.00 work-hours x $85 per hour = $680	$155,302	$155,982 per replacement	$7,799,100

This proposed AD does not add new required actions; however, the compliance times for certain actions have been reduced and a certain on-condition action has been revised.

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
Up to 4 work-hours $85 per hour = $340	Up to $1,395	Up to $1,735

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage for affected individuals. As a result, the FAA has included all costs in the cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2021-05-05, Amendment 39-21448 (86 FR 13972, March 12, 2021); and

b. Adding the following new AD:

Airbus Helicopters: Docket No. FAA-2022-0102; Project Identifier MCAI-2021-00841-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-05-05, Amendment 39-21448 (86 FR 13972, March 12, 2021) (AD 2021-05-05).

(c) Applicability

This AD applies to Airbus Helicopters Model SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 6500, Tail Rotor Drive System.

(e) Unsafe Condition

This AD was prompted by a report where during a landing phase, a helicopter lost tail rotor pitch control, which was caused by significant damage to the tail rotor gearbox (TGB) control rod double bearing (bearing). This AD was also prompted by the determination that reduced inspection intervals, updated corrective actions, and increased compliance time for replacement of affected parts are necessary to address the unsafe condition. The FAA is issuing this AD to prevent damage to the bearing, which if not addressed, could result in loss of yaw control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) For Model SA-365N1, AS-365N2, AS 365 N3, EC 155B, and EC155B1 helicopters: Except as specified in paragraph (h) of this AD, comply with all required

actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0171, dated July 19, 2021 (EASA AD 2021-0171).

(2) For Model SA-366G1 helicopters: Before further flight after the effective date of this AD, accomplish the actions (e.g. modify the helicopter by replacing the TGB control shaft guide bushes, do repetitive inspections of the TGB magnetic plug and applicable corrective actions; do repetitive replacements of a certain bearing; and modify the helicopter by replacing the TGB) specified in paragraph (g)(l) of this AD using a method approved by the FAA.

(h) Exceptions to EASA AD 2021-0171

(1) Where EASA AD 2021-0171 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2021-0171 refers to flight hours (FH), this AD requires using hours time-in-service.

(3) Where EASA AD 2021-0171 requires action after the last flight of the day or "ALF," this AD requires those actions before the first flight of the day.

(4) This AD does not mandate compliance with the "Remarks" section of EASA AD 2021-0171.

(5) Where paragraph (2) of EASA AD 2021-0171 requires inspections (checks) to be done "in accordance with the instructions of Paragraph 3.B.1 of the applicable inspection ASB," for this AD, those instructions are for reference only and are not required for the actions in paragraph (2) of EASA AD 2021-0171. The inspections (checks) required by paragraph (2) of EASA AD 2021-0171 may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9 (a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417 or 135.439.

(6) Where paragraph (5) of EASA AD 2021-0171 specifies "if any discrepancy is detected, as defined in the applicable inspection ASB, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of Paragraph 3.B.1 of

the applicable inspection ASB," for this AD, a qualified mechanic must add oil to the TGB to the "max" level if the oil level is not at maximum. The instructions are for reference only and are not required for the actions in paragraph (5) of EASA AD 2021-0171.

(7) Where paragraph (6) of EASA AD 2021-0171 refers to "any discrepancy," for this AD, discrepancies include the presence of particles and other conditions such as abrasions, scales, flakes, and splinters.

(8) Where the service information referred to in EASA AD 2021-0171 specifies to perform a metallurgical analysis and contact the manufacturer if collected particles are not clearly characterized, this AD does not require contacting the manufacturer to determine the characterization of the particles collected.

(9) Although service information referenced in EASA AD 2021-0171 specifies to scrap parts, this AD does not include that requirement.

(10) Although service information referenced in EASA AD 2021-0171 specifies reporting information to Airbus Helicopters, filling in a "particle detection" follow-up sheet, and returning a "bearing monitoring sheet" to Airbus Helicopters, this AD does not include those requirements.

(11) Although service information referenced in EASA AD 2021-0171 specifies returning certain parts to an approved workshop and returning certain parts to Airbus Helicopters, this AD does not include those requirements.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2021-0171 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 provided that there are no passengers onboard.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Related Information

(1) For EASA AD 2021-0171, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; Internet: www.easa.europa.eu. You may find EASA AD 2021-0171 on the EASA website at https://ad.easa.europa.eu. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0102.

(2) For more information about this AD, contact Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; telephone (202) 267-9167; email hal.jensen@faa.gov.

Issued on February 11, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-03515 Filed: 2/17/2022 8:45 am; Publication Date: 2/18/2022]